

U.S. Application Serial No. 09/690,993

### **REMARKS**

The present amendment is in response to the Official Action dated June 2, 2003, wherein the Examiner rejected pending claims 1-4, 7, 8, 12, 13, 15-24, 26 and 27, and objected to claims 5, 6, 9-11, 14, 25, 28 and 29. Claim 30 was allowed. More specifically, claims 1-4, 7, 8, 12 and 13 have been rejected as being anticipated by Su et al., "A Distributed Power Allocation Algorithm with Adaptive Modulation for Multi-Cell OFDM Systems", IEEE, 1998, and claims 22-24 have been rejected as being anticipated by Hughes-Hartogs, US Patent No. 4,679,227. However the references fail to make known or obvious the claims of the present application, as suggested in the rejection, and even more clearly, in view of recent amendments to the claims, making the claims more clear.

Additional amendments have been expressly articulated, in an order to accommodate an appropriate dependency for claim 26 and to account for claim 14, which was missing from the original application materials. Several claims which were objected to, only to the extent that they were dependent upon a rejected base claim, have also been amended to put the claims into independent form.

As presently amended, claim 1 additionally provides for receiving a reference signal transmitted over each subchannel in said plurality of subchannels within said wideband channel. In at least some instances, this can accommodate the receiving unit being able to observe certain interference/noise effects in some subchannels corresponding to transmissions in other associated subchannels.

Claim 12 has been amended to accommodate a method wherein the transmitting activity transmits OFDM data over more than one channel.

In rejecting claims 22-24, Hughes-Hartogs, US Patent No. 4,679,227 was principally relied upon. However, Hughes-Hartogs, '227, contrary to the reasoning presented in connection with the rejection, fails to include an OFDM receiver configured to obtain a signal-to-noise ratio for each subchannel in said plurality of subchannels within said wideband channel. In each of the cited instances "the originate modem 26, in cooperation with the answer modem 26", measures the equivalent noise level at each carrier frequency" and not the signal to noise ratio. In fact, the noise data present on the line is specifically accumulated in the absence of any transmission by either modem (col. 8, lines 21-23). Still further a power level required to

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transmit data elements is determined by multiplying the equivalent noise by the signal to noise ratio necessary for transmission of the various data elements with a required BER (col. 11, lines 21-24), where the signal to noise ratio comes from ratios, which are available from standard references (col. 11, lines 26-27) and not from actual values obtained relative to the various subchannels. Consequently, contrary to the remarks associated with the rejection, Hughes-Hartogs, '227, fails to make known obtaining a signal-to-noise ratio for each subchannel in said plurality of subchannels within said wideband channel.

The applicants note with appreciation, the Examiner's indication that claim 30 is allowed and the indication that claims 5, 6, 9-11, 14, 25, 28 and 29 contain allowable subject matter.

The applicant would contend that the claims are in a condition for allowance, and would respectfully request that the Examiner reconsider the rejection of the claims. Should any issues remain unresolved after the consideration of the present response, the Examiner is requested to contact the applicant's representative at the number listed below to discuss the same.

Respectfully submitted,  
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